

Michigan's New Power Plant Will Cost One-Third of a Million Dollars When Completed

Ann Arbor.—Michigan's new power plant, now practically completed, is a model of efficiency. It embodies the latest methods of construction. When fully in all its details it will cost a third of a million dollars, of which the state has appropriated \$285,000.

The plant is intended to make available for the use of all the departments of the University heat, compressed air and electrical energy, distributing in the form desired at all the various points of demand. High pressure steam is required for laboratory use for the operation of the engines driving electrical generators

and for pumping water. Low pressure steam is required for the heating systems of the various buildings, and in the heating of water for domestic service, and for the boilers themselves. Compressed air is required for the operation of thermostats giving automatic heat regulation in the various buildings, as well for the care of electrical machinery and apparatus. Electrical energy is required in the form of an alternating current at 2,300 volts for general distribution, and at 110 volts for lighting, and 220 volts for power. A direct current is also required at 125 volts for excitation, at 250 volts for present direct current motors and laboratory use, and at 500 volts for electric railway service.

From first to last, it has been the aim of the designers to do away with all the labor possible, and to this end every possible labor-saving device has been employed. From the time when the coal is taken from the mines to the time when the ashes are hauled away, not a man's shovel will touch a particle of coal or refuse. A thirty-ton electrical locomotive brings the coal cars to the plant from the Michigan Central tracks, an electrically operated traveling crane unloads the coal into an outside storage bin of 2,000 tons capacity. From there it is elevated, crushed and dumped into the steel bunkers of 500 tons capacity over the boiler room, from which the proper number of pounds are let into the grate beneath each boiler by means of a lever. From the grate the ashes drop into a large pipe from which they are sucked, cinders and

all, into a twelve-ton ash container, situated just above the railroad spur on the west side of the building. Fifteen thousand tons of coal a year will be handled in this way.

Into each of the boilers the coal is weighed separately, so that a record of the cost of firing each boiler is possible. In addition to these boilers, which supply steam for the power plant and for heating purposes, there are two large feed water heaters, which bring the water to the boiling point before it is turned into the boilers, in this way avoiding the waste of heat, which results when cold water must be brought to boiling in the boiler itself. Each of these heaters will have a capacity of 12,000 gallons per hour at a temperature of 212 degrees. They will also supply hot water for gymnasiums and the Nomenclature hospital.

Only three men will be required to run the plant at any one time, an engineer, a stoker and a water-boy. They will work in eight-hour shifts, so that a total force of but nine men will be needed for the operation of the plant.

SOIL TESTING CAMPAIGN

INAUGURATED IN MICHIGAN.

Traverse City.—The campaign against the apple tree tent caterpillar, which has been conducted in Western Michigan during the past three months, under the direction of Prof. Myron A. Cobb of the agricultural department of the Central Michigan Normal, has been so successful

that Prof. Cobb is now planning a second campaign. This will be a constructive, rather than a destructive, campaign. Prof. Cobb has the printed matter nearly ready for distribution. It deals with methods for testing the soil for acidity and for lime. The plan is to furnish the teachers of the rural schools throughout Western Michigan, with full information regarding methods for soil testing, and to have these instructions so simple that any teacher can test soil with a fair degree of accuracy. As soon as the teachers become expert testers, the children will be invited to bring samples of soil to school, that these may be pronounced either alkaline or acid. Prof. Cobb has noticed in his travels over Western Michigan, that many acres are being sown to alfalfa, which are so strongly acid that the prospects of getting a good alfalfa crop is small. It is his idea that all farmers before sowing alfalfa, should send to the nearest school-teacher samples of soil from the proposed field, that the teacher may render a statement as to the need of the soil as regards lime.

Prof. Cobb recently gave expression to the following sentiments upon this point: "It is folly for the high schools and the agricultural colleges to allow the farmers to continue to sow alfalfa on fields that are lacking in lime, and to eventually make a failure of their efforts, when the condition of the soil can be so easily determined."

Lansing.—Governor Ferris has issued a requisition on the governor of California for Joseph W. Humphrey, now in that state, who is wanted at Flint on the charge of having sold stock of the Michigan-Arkansas Lumber company under false pretenses. The particular case on which the requisition is issued is that of Helen V. Walker of Flint, to whom Humphrey sold 13,500 shares of the stock.

lins will be advanced to the position.

Battle Creek.—Official announcement is made that the Adventist tabernacle, the largest church in Michigan, will not be sold to the chamber of commerce for a convention hall.

Hillsdale.—George A. Mark, the oldest county surveyor and drain commissioner in continuous service in Michigan, died Thursday. He was 84 years old and a member of the class of '53, the first engineering class to be graduated from the University of Michigan.

Battle Creek.—William Rook, a city teamster, despondent over poor health, took his own life by swallowing poison. Rook, 30 years old, lived with his widowed mother, who says he has complained of late of inability to stand his work. He was unmarried.

Battle Creek.—Municipal ownership of a water works system has paid in Battle Creek. The income of the local plant in the past year amounted to something like \$77,000, while the expenses were \$21,957. Battle Creek has 78 miles of mains and 6,235 meters.

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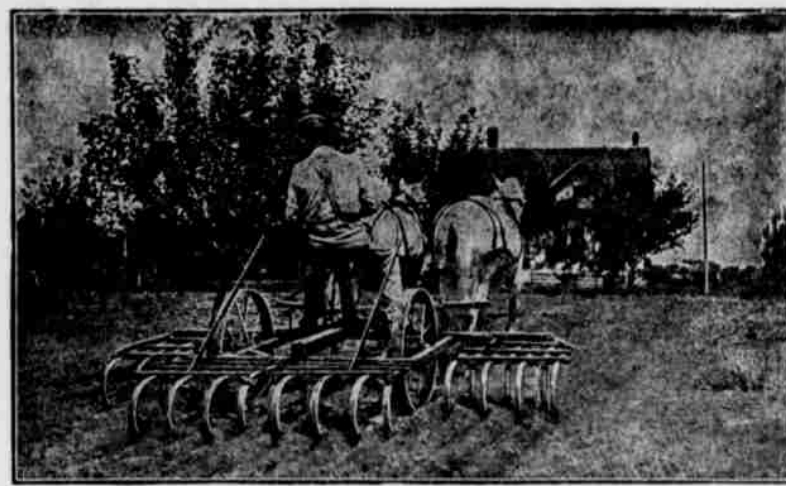
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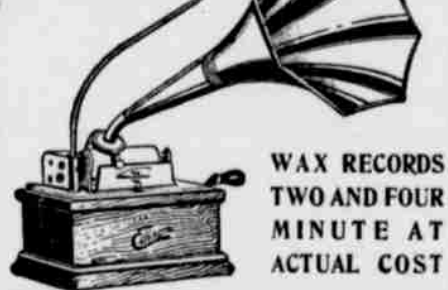
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MICHIGAN COLLEGE OF MINES. STUDENTS FINISH UNDERGROUND WORK IN 1 WEEK

Houghton.—The first-year class of Michigan College of Mines students has finished out its beginning course in the Principles of Mining by spending a week underground in the copper mines of the district. In other years, these trips have been taken on Saturdays throughout the term.

The mines visited this year were as follows: Calumet and Hecla (amalgamoid lode), Franklin, Champion, Winona and Isle Royale. In order to take these trips, the students have to arrive at the mines in time to go down with morning shift of miners. The captains, shift-bosses and other mine officials guide them through the workings and explain to them the details of mining practice. The mining companies of Michigan have always co-operated ungrudgingly with the College in its task of "teaching the students how to mine."

New Corporations.

Marolf-Oberg Real Estate company, Iron River, \$10,000, incorporated to deal in real estate, principal stockholders William H. Marolf and M. E. Oberg; Master Plumbers' Specialty company, incorporated to deal in plumber's supplies, principal stockholders E. A. Newman and H. R. Mauren; Barkume & Starke Concrete company, Detroit, \$5,000, incorporated to construct cement walks, principal stockholders E. J. Barkume and F. H. Stark; Globe Realty company, Grand Rapids, \$100,000, incorporated to deal in real estate, principal stockholders Fred N. Rowe and L. E. Smith; Franklin Theater company, Saginaw, \$60,000, incorporated to operate a theater, principal stockholders J. B. Kirby and J. D. Filmore.

GOVERNOR FERRIS MAKES APPOINTMENTS.

Lansing.—Governor Ferris has appointed the following county agents: Iron county, Charles Neugebauer, Crystal Falls; Manistee county, Joseph Schneider; Keweenaw county, Dr. A. N. Chatel, Phoenix; Isosco county, Alfred J. Noel, East Tawas; Osceola county, Frank E. Turner, Evart.

He has also appointed Mari T. Murray of Lansing delegate to the American Association of Officials of Charities and Corrections, to be held at Memphis, Tenn., May 7 and 8; also to the National Conference of Correction and Charities at the same place May 4 to 15.

SHORT STATE STORIES

Battle Creek.—Messages to local relatives of C. W. Post announce his arrival at Santa Barbara, Cal., with the appended information that he is in good health, following his operation at Rochester, Minn.

Jackson.—Edward A. Finney has resigned as captain of Company M, First infantry, M. N. G., located here. He retires from the service for business reasons. First Lieut. L. J. Col-

S
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